

2020
PROGRAM YEAR

**WORKFORCE
INFORMATION
GRANT TO THE
STATES**

MARYLAND

**ANNUAL
PERFORMANCE REPORT**



Introduction

The U.S. Department of Labor, the Employment and Training Administration (ETA), funds every U.S. state with grants. The Workforce and Labor Market Information Grants to States (WIGS) provide grant funding for the development, management, and delivery of workforce and labor market information.

In Maryland, the WIGS is managed by the Office of Workforce Information and Performance (OWIP) within the Division of Workforce Development and Adult Learning (DWDAL) in the Maryland Department of Labor (MD Labor). Per the grant agreement, OWIP staff must provide the deliverables according to the requirements and timeframes outlined in the [Training and Employment Guidance Letter \(TEGL\) 2-20](#). The Labor Market Information (LMI) team within OWIP is primarily responsible for compliance with the deliverables ETA outlines every program year (PY).

This report provides an overview of the work the LMI team conducted with WIGS funding during the 2020 program year (July 1, 2020, through June 30, 2021). Maryland expends WIGS to upgrade and maintain traditional labor market products, as well as introduce new products and services to assist its end-users, stakeholders and customers. Some of the end-users, stakeholders and customers include:

- ▶ Job seekers
- ▶ Businesses/Employers
- ▶ Labor market intermediaries (schools, career counselors, case managers at American Job Centers (AJCs))
- ▶ Program and service planners
- ▶ State and local policymakers
- ▶ Economic development entities
- ▶ Grantees, researchers, commercial data providers, and the media

The COVID-19 pandemic is having a major impact on the global and local economy. During times of extreme economic changes, the information OWIP produces and disseminates by means of WIGS funding is crucial. Faced with the challenges of 2020, the WIGS-funded staff provided critical expertise in Maryland's efforts to support the state and local economies.

Workforce Information Database (WID)

MD Labor is currently operating with version 2.8 of the Workforce Information Database (WID), per the guidelines issued by the Analyst Resource Center (ARC). Maryland uses grant funds and its partnership with [Geographic Solutions](#) to create, store, and upload LMI to the WID. Geographic Solutions houses Maryland's WID data on its [Virtual OneStop \(VOS\)](#) system.

The WID is a defining component of labor market information. Its structure defines what LMI is and how it is utilized. The WID enables web and other applications to be developed around a standard. This standard provides a common LMI data model applications can use. Geographic Solutions and its VOS benefit from this common data model, rendering sharing between states a more seamless experience. With a common platform like the WID, if a problem arises, experts are available across states to which others can turn when new requirements become law or staff turnover requires swift onboarding. The WID serves as a foundation for economic data delivery and research information. Data uploaded to the WID resides on the [Maryland Workforce Exchange \(MWE\)](#).

To ensure the WID is up-to-date and each of the ARC-designated core tables are fully populated with relevant data, Geographic Solutions and OWIP staff practice the following measures to ensure data is uploaded to the WID in a timely manner:

- ▶ Local Area Unemployment Statistics (LAUS) files are uploaded monthly. This includes statewide and residential labor force, employment, and unemployment statistics.
- ▶ Industry data from the Current Employment Statistics (CES) is uploaded monthly. The Quarterly Census of Employment & Wages (QCEW) is updated quarterly.
- ▶ Occupational data, from the Occupational Employment and Wage Statistics (OEWS) program, is uploaded annually.
- ▶ Per TEGL 2-20 requirements, the WID is updated annually with the latest short-term (two-year) industry and occupational projections, as well as biennially with long-term (10-year) industry and occupational projections for Maryland statewide.
- ▶ Starting in PY 2020, Geographics Solutions began the process of updating all occupational data on the WID. The U.S. Department of Labor changed a selection of their occupational definitions beginning with Standard Occupational Codes (SOC) 2018. Geographics Solutions is in the process of incorporating the 2018 SOC definitions to the OEWS program and the Occupational Information Network (O*NET) occupations on the VOS.

Industry & Occupational Projections

In accordance with TEGL 2-20, Maryland produced its short-term employment projections for the 2020-2022 period. These projections are made for Maryland's [industries](#) and [occupations](#). Likewise, Maryland finalized its 2018 – 2028 long-term [industry](#) and [occupational](#) employment projections for its Local Workforce Development Areas (LWDAs). Starting with the 2018 – 2028 employment projections, Carroll and Howard counties are now LWDAs, replacing Mid-Maryland.

Industry and occupational projections are useful to a variety of customers. This information is shared with Local Workforce Development Boards to assist them in developing in-demand occupation lists for their areas. These lists are used to allocate training resources under the [Workforce Innovation and Opportunity Act \(WIOA\)](#). This information is used to inform workforce development policy decisions. There is a significant collaboration among a variety of workforce development partners in Maryland related to the industry and occupation projections program.

Maryland's Local Workforce Development Areas

Employment Projections, 2018 - 2028

Total		
	New Jobs Created	Annual Growth Rate
Total Employment		
Anne Arundel	28,396	1.0%
Baltimore City	22,432	0.6%
Baltimore County	16,454	0.4%
Carroll	3,601	0.5%
Frederick	7,413	0.6%
Howard	10,117	0.6%
Lower Shore	6,403	0.7%
Montgomery	35,909	0.7%
Prince George's	20,900	0.6%
Southern Maryland	10,037	0.8%
Susquehanna	9,946	0.7%
Upper Shore	5,214	0.6%
Western Maryland	7,223	0.5%

Employee Development & LMI Training

Throughout the program year, OWIP provided employee development for its state partners, by way of LMI trainings. These trainings help to ensure quality service delivery. OWIP's goal is to promote robust use of LMI by offering professional development trainings to workforce agency staff, local AJC staff, and more (referenced in the introduction section). Due to the COVID-19 pandemic, all LMI trainings became virtual. Below are the employee development activities provided by OWIP in PY 2020.

LMI Trainings in PY 2020

Training	Audience	Date	Location	Number of Attendees
Introduction to Labor Market Information	Office of the Secretary: Performance Management Program Analysts	September 22, 2020	Virtual	3
Census Data Overview	Office of the Secretary: Performance Management Program Analysts	November 10, 2020	Virtual	3
Labor Market Information on the MWE	American Job Center Staff	November 19, 2020	Virtual	15
How to Access Public UI Information	Maryland Access to Justice Commission staff	December, 2020	Virtual	10
Labor Market Data at the Maryland Department of Labor	Office of Legislative Oversight Montgomery County: Performance Management	January 8, 2021	Virtual	2
Industry Data for Prince George's County	Employ Prince George's Inc.	January 8, 2021	Virtual	5
Introduction to Occupational Data on the Maryland Department of Labor	University of Maryland Baltimore County	January 13, 2021	Virtual	2
Labor Market Information on the MWE	American Job Center Staff	January 26, 2021	Virtual	26
In-Depth Labor Market Information	American Job Center Staff	April 21-22, 2021	Virtual	27
Raising the Bar: Hot Jobs, Identifying Promising Local Occupations	Maryland Department of Labor Employees and Partners	June 15, 2021	Virtual	275
In-Depth Labor Market Information	American Job Center Staff	June 23-24, 2021	Virtual	11
Baltimore County Data on the MWE	Baltimore County Department of Economic & Workforce Development	June 24, 2021	Virtual	8

Annual Economic Analysis & Other Reports

OWIP produces an annual economic analysis report covering Maryland and its sub-state areas. The report uses the LMI data that OWIP provides through its partnership with the Bureau of Labor Statistics (BLS), as well as LMI from other government sources. While this annual report is an ETA requirement, it is a vital resource for personnel within the MD Labor and outside the agency who rely on LMI data for their reporting. Due to the ongoing pandemic, this annual report focuses on the economic challenges and recovery in Maryland. The report identifies industries and areas in Maryland that have been particularly resilient to the economic impacts of the coronavirus, and identifies sectors facing greater challenges.

OWIP produces supplementary reports and infographics for customers and stakeholders to make informed decisions. Every published report and publication that OWIP creates is accessible on the [MWE publications page](#). Below are examples of some of OWIP's reports and publications, along with links to each report.

2020 Economic Analysis Report

A required submission to ETA, the Economic Analysis Report is a detailed analysis of Maryland's economy, market trends, and challenges and successes made due to the COVID-19 pandemic at the state and local levels.



Monthly Labor Review

The Monthly Labor Review is a monthly publication located on MD Labor and MWE websites. The Monthly Labor Review provides the state's employment situation for Maryland, its counties, select cities, and metropolitan statistical areas.



LMI Newsletter

OWIP releases the LMI Newsletter in conjunction with the Monthly Labor Review, which is a monthly distribution of updates and new information releases. The newsletter includes LMI-related articles, data updates, new or updated LMI webpages, along with a brief Maryland factoid. The newsletter concludes with economic-related articles covering Maryland and its local areas.



Customer Consultations

A key mission of WIOA, MD Labor, and OWIP is to meet the needs of customers. WIOA requires states to consult with their customers about the importance of LMI. OWIP consults with its customers and stakeholders on how to best utilize LMI. In PY 2020, assisting customers proved to be vital with the ongoing pandemic. Many had questions about the economic impacts of the coronavirus and required more information on how to better serve their customers.

LMI Data Requests

Program Year 2020

	LMI Requests	Percent	Internal	External
Total LMI Requests	177	100%	66	111
Period				
July 2020	16	9%	5	11
August	11	6%	4	7
September	19	11%	9	10
October	16	9%	5	11
November	16	9%	8	8
December	18	10%	6	12
January 2021	14	8%	5	9
February	16	9%	10	6
March	14	8%	2	12
April	13	7%	4	9
May	7	4%	2	5
June	17	10%	6	11

OWIP served 177 customers through LMI data requests in PY 2020, a 9% increase over the customers served in PY 2019. Many LMI requests occur via email to OWIP's group [LMI email address](#); however, as relationships progress, customers at times will email the LMI team directly. Like PY 2019, September led the way with the most LMI requests at 11%. This was followed by December 2020 (10%) and June

2021(10%), then by July 2020, October 2020, November 2020, and February 2021 all at 9%. OWIP averaged almost 15 requests per month, and more LMI customer requests were external (63%) than internal (37%). Internal LMI requests are from within MD Labor. The requests come from different offices, divisions, and AJC centers within the department. External LMI requests come from customers not affiliated with MD Labor. External requests can come from employers, students, educational programs, single entities, and more.

Customer Survey

To solicit detailed feedback from LMI customers and stakeholders, OWIP conducted a [satisfaction survey](#). The purpose of the survey was to gauge customer needs and continuously improve assistance and the resources available to OWIP's customers. The survey was distributed electronically to the individuals who receive the monthly LMI newsletter.

Most respondents to the survey visited the OWIP website monthly (52%). Weekly visitors were also common (29%), then either the respondents never visit (10%), visited annually (6%), or visited daily (3%).

Of the products that OWIP produces, respondents chose the Monthly Labor Review as the product most used (82%). Other popular products that respondents used are [LAUS data](#) (68%), [Employment Situation](#) (64%), [Maryland Workforce Exchange](#) (57%), and [CES data](#) (57%).

Interactive tables and graphs are the most preferred manner of data presentation, with 86% of respondents finding that is their preferred way of interpreting LMI. This marks a change from previous surveys where static tables and graphs were the most popular.

Ninety-three percent typically found the information for which they were researching on the OWIP website, and most respondents found the content, design, and website navigation either exceptional, met, or exceeded their expectations. Seventy-four percent would use the OWIP website again, and 68% would recommend the site to a friend or college. Sixty-eight percent of the respondents felt very satisfied with their overall experience with the labor market website.

LMI Customers Served

Internal Requests

- ▶ Office of the Secretary
- ▶ Office of the Assistant Secretary
- ▶ Division of Occupational and Professional Licensing
- ▶ Employ Prince George's, Inc.

External Requests

- ▶ Washington County Public Schools
- ▶ Comptroller of Maryland
- ▶ University of Notre Dame
- ▶ Federal Reserve Bank of Richmond
- ▶ ElevateHER

Information Technology Systems

OWIP strives to incorporate technology systems to simplify data reporting, improve workflows, and create new projects.

OWIP continued using the programming language Python to create faster, more efficient workflows.

- ▶ For the QCEW program, Python is used to automate the tasks of aggregating employer data, such as establishments, employment, industries, and wages.
- ▶ OWIP is revising and expanding the Hot Jobs publication to better compare occupations for job seekers, training providers, students, and others. Python is being used to develop the comparison algorithm.
- ▶ Python speeds the creation of Maryland's employment projections by more efficiently accessing and organizing various economic indicator variables including price levels, population, and GDP.

OWIP uses Geographic Information Systems (GIS) to illustrate and streamline LMI data.

- ▶ For the Monthly Labor Review publication, OWIP uses GIS program ArcGIS to graphically depict the employment and unemployment situation for each Maryland county.
- ▶ A heatmap of unemployment claims by zip code was created using ArcGIS software.
- ▶ ArcGIS was used in the Layoff Aversion Fund program. Businesses that received funding were illustrated on a map of Maryland.
- ▶ An interactive and static map of Maryland manufacturing businesses and public transportation is being developed using Google Maps and ArcGIS. This will show customers where jobs are easily accessible by public transportation.

ClicData is a business intelligence tool OWIP uses to create dashboards.

- ▶ The LMI Team created an unemployment dashboard so end-users could research unemployment claims data by industries, occupations, and zip codes.

OWIP hosts many of its data tables using dataZoa.

- ▶ The LMI team creates data tables with dataZoa. These tables generate automated updates via an application programming interface (API) pull.
- ▶ Beginning in PY 2020, the dataZoa website allowed its customers to have more control over API pulls. Customers can activate an API pull to force an update to their specified data tables.

Partnerships & Collaborative Efforts

The following is a list of partnerships and collaborations formed or continued in PY 2020.

Partnerships in Program Year 2020

Partnerships	Activity	Status
Projections Managing Partnership (PMP)	OWIP's Director serves on the Board of Directors and PMP training committee. The training committee focuses on how to best deliver training to projections analysts throughout the country.	Ongoing
National Association of State Workforce Agencies	Member of Employment & Training Committee	Ongoing
Division of Unemployment Insurance	Partnering to improve UI claims reporting. Developed advanced UI data sharing and analytical techniques. Fostered methods to investigate and detect UI fraud.	Ongoing
Division of Workforce Development & Adult Learning	WIOA Local Workforce Plans: The LMI Team reviewed the economic sections for each local plan report. Every Workforce Development Area is required to create a report for their respective area.	Ongoing
Regional Manufacturing Institute	A project to connect Maryland manufacturers to public transit routes. The goal is to create interactive and static maps to show public transportation and neighboring manufacturing businesses.	Ongoing

Partnerships in Program Year 2020

Partnerships	Activity	Status
New Americans - DWDAL	The LMI Team partnered to provide data on New Americans and other minorities in Maryland. This data was used to create infographic flyers on MD Labor's New Americans webpage .	Ongoing
Maryland Economic Development Commission	Developed methods to make LMI more accessible to commission members, and to increase LMI trainings and meetings.	Ongoing
Maryland Department of Agriculture	Investigated and tracked prevailing wages for MD farmworkers.	Ongoing
Maryland Energy Administration & Maryland Department of Commerce	Developed methods to enhance the tracking of clean energy jobs. Created employment projections for clean energy job sector.	Ongoing
Office of Financial Regulation	Using LMI data and research to develop benchmarks to determine a time frame to end the housing foreclosure moratorium.	Ongoing
Baltimore Metropolitan Council	Collaboration on techniques to enhance LMI and UI data reporting.	Ongoing
Maryland Benchmarks of Success	Member of the data and dashboard team. A collaboration with the Governor's Workforce Development Board, Maryland Workforce Association, Maryland Department of Human Services, and the Maryland Department of Housing and Urban Development to produce benchmarks across different programs to track improvements to the workforce training system.	Ongoing

Partnerships in Program Year 2020

Partnerships	Activity	Status
National Governors Association	A collaboration with state consortium to use available data to understand and support the on-demand workforce.	Ended October, 2020
Maryland Higher Education Commission	A collaborative statewide analysis of supply and demand for Medical Assistants.	Ended December, 2020
Division of Workforce Development & Adult Learning	Layoff Aversion Fund: Assisted with employer applications. Validated balance sheet, checked and corrected formatting errors.	Ended December 2020
Governor's Office of Performance Improvement	Sharing various online LMI tools and resources. The goal was to improve data communication.	Ended January 2021
Office of the Assistant Secretary	Layoff Aversion Map: Created a map of all the businesses who were awarded Layoff Aversion funds.	Ended January 2021
Hospitality Businesses in Maryland	Using LMI to explain labor shortages and ways to increase staffing for the upcoming summer tourism season.	Ended April, 2021
Maryland Department of Planning & Maryland Department of Commerce	Collaboration to improve the understanding of business establishment data to predict business expansion or shrinking.	Ended April, 2021

OWIP has leveraged WIGS funding to partner with the Jacob France Institute (JFI) at the University of Baltimore for several projects. The current project with JFI is to overhaul the County Fact Sheets, currently hosted in the publications section of the OWIP website. Replacing the fact sheets will be a new data dashboard containing LMI data and access to relevant data from other sources. This includes data not typically found on LMI websites, such as information on job separations, Temporary Assistance for Needy Families, apprenticeship data, and more. The dashboard is scheduled to be posted on the OWIP website in early PY 2021.

By utilizing grant funds, OWIP formed a partnership with Towson University to create a new tool to visualize and analyze industry data. The Industry Analysis Tool (IAT) is the result of their collaborative efforts. The IAT is a web-based application used for QCEW data analysis. The user can research county and workforce development areas, as well as compare employment, establishments, and wages. Each query creates charts and data tables the user can share via download or a web link. The IAT is in the testing phase on MD Labor's [IAT webpage](#) with a full rollout expected in PY 2021.

MD Labor partnered with Geographic Solutions to create a [COVID-19 webpage](#) on the MWE homepage. The goal of the new webpage is to provide job seekers with important employment information during these challenging economic times. The COVID-19 page highlights top recruiting employers, unemployment information, relevant COVID informational links, labor market news, upcoming recruitments, and job fairs.

Launched in PY 2020, in collaboration with Geographic Solutions, the newly redesigned [LMI homepage](#) on the MWE offers a wealth of LMI data. It includes shortcuts to popular real-time LMI and quick access to industries, occupations, and unemployment data.

Data Sharing Agreements

The following agencies are partners through data-sharing agreements. Under a memorandum of understanding (MOU), the following agencies receive OWIP's full employer database.

- | | |
|---|---|
| ▶ Maryland's Non-profit Consortium | ▶ Maryland Department of Commerce |
| ▶ Jacob France Institute at the University of Baltimore | ▶ Montgomery County Economic Development Office |
| ▶ Center for Smart Growth at the University of Maryland (Maryland Department of Transportation) | ▶ Montgomery County Parks and Planning Office |
| ▶ Maryland National Capital Park and Planning Commission | ▶ Maryland National Capital Park and Planning Commission – Prince George's County |
| ▶ Frederick County Department of Finance | ▶ Maryland National Capital Park and Planning Commission – Montgomery County |
| ▶ Maryland Department of Planning | ▶ U.S. Census Bureau – Longitudinal Employer Household Dynamics Program |
| ▶ City of Rockville | |

Support Activities in Response to COVID-19

Given the impact of the COVID-19 pandemic in PY 2020, MD Labor, DWDAL, and OWIP significantly changed how they assist existing customers and support new customers, while meeting the increased demands brought on by the pandemic. The following are some of the activities OWIP contributed to in Maryland's efforts to help the state and local economy.

OWIP staff provided Unemployment Insurance (UI) inquiry support with answering emails from claimants. These generally consisted of sending instructions on how to apply for benefits and answering questions regarding where to go for help. The number of emails the UI claims center received increased by an insurmountable number, so claimants were contacting other divisions for assistance. OWIP staff were able to help with general UI information to avoid unnecessary customer frustration and reassure claimants that MD Labor was doing its best to provide needed support.

Since March 2020, LMI staff has collaborated with the Division of Unemployment Insurance and the MD Labor's Office of the Secretary to provide timely claims information during the pandemic. This assistance resulted in the [Unemployment Insurance Initial Claims by County](#) webpage. The webpage contains detailed weekly reports on Marylanders who filed initial claims. UI customer and stakeholder consultations informed what was included in the report.

As part of OWIP's partnership with the Division of Unemployment Insurance, the LMI team developed a [UI claims dashboard](#). This dashboard reported more granular UI claims data. The dashboard reported the different types of claims data and grouped the information by industry or occupation for Maryland and its counties. For a more illustrative representation of the data, included in the dashboard are heatmaps of claims data for each Maryland zip code.

Governor Larry Hogan and MD Labor announced that beginning on October 28, 2020, Maryland would launch its [COVID-19 Layoff Aversion Fund](#). This fund was designed to support small businesses undergoing economic stresses due to the pandemic by preventing or minimizing the duration of unemployment resulting from layoffs. With the program announced, personnel were needed to handle its implementation. Numerous staff from DWDAL assisted in creating the fund application process, vetting applications, and assisting with fund allocation. LMI staff were involved in validating the requested funds on the balance sheet, as well as solving any formatting errors found on the fund applications.

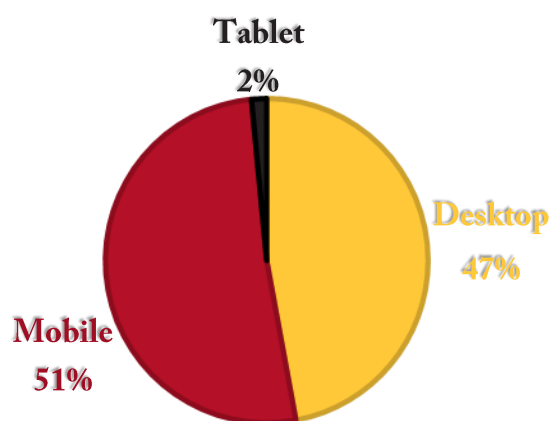
After the COVID-19 Layoff Aversion Funds were distributed, MD Labor began tracking program impacts. The LMI team created an internal spreadsheet with all Maryland businesses that were awarded funds. The spreadsheet aggregated all fund allocation data to yield the number of businesses awarded statewide and throughout Maryland's counties. The information was used to examine and share insights on the Layoff Aversion Fund impacts. Visualizations from this data, including a map of fund recipients, were created. The map was included in multiple presentations and the [Layoff Aversion Press Release](#).

Occupational Licensing

For PY 2020, Maryland populated the ARC database with the "license.dbf" and "licauth.dbf" licensing files, as outlined by TEGL 2-20. The licensing files were submitted in June 2020 with the next update scheduled for June 2022. Maryland's licensing data is shared periodically with [CareerOneStop](#) and is their source for the [License Finder](#). End-users can search license requirements in any state by occupation, job title, or license name.

Website Statistics

In PY 2020, the Maryland Department of Labor had over 28 million website visitors, averaging 2.3 million per month. With the advent of smartphones, the tools used to access MD Labor's webpages have changed. Most of MD Labor's website visitors access the website by the use of their mobile device (51%).



Webpage statistics help determine which products have gained the most traffic and whether more people are becoming familiar with OWIP's website. Likewise, the mobile device web statistic demonstrates that content on OWIP should be responsive to access from different types of devices. Web traffic has notably increased during the past two program years. Due to the ongoing economic turbulence caused by the COVID-19 pandemic, LMI found on OWIP's webpages has proven crucial. Many people have turned to LMI data to provide explanations, or to find a base to start from when predicting Maryland's future economy.

In PY 2020, end-users accessed OWIP's landing page over 24,000 times - a 25% increase over the prior program year. The webpage averaged 2,013 visitors per month, with the most visits occurring in June

2021(2,504). Seven months in PY 2020 outpaced the average monthly visitors, and nine months surpassed PY 2019's monthly average.

Website statistics for the five major data products (QCEW, LAUS, OEWS, CES, Projections) OWIP produces averaged 2,060 monthly visitors, up 45% from PY 2019. The QCEW program averaged the most monthly visitors at 4,605, a 141% increase from PY 2019. Other notable growth in website hits in PY 2020 included Employment Situation (40%), LAUS (22%), CES (22%), and OEWS (3%) programs.

Recommendations for Improving the Use of WIGS Funding

Particularly during times of economic turbulence, state LMI teams around the county spend significant time and money developing custom tools to improve data access and analysis capabilities for customers. More centralized tracking of what tools exist, and how easily they could be utilized by other states could be very helpful. States would know what tools and information are available and can bridge the gap between what is and is not available. This would result in a more efficient spending of WIGS dollars, and improved tools being available to customers. Additional funding from ETA would lead to more resources to create more custom tools and resources to improve data comprehension for LMI consumers.

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